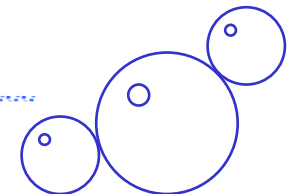
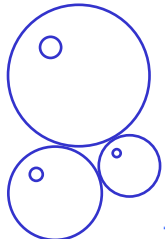
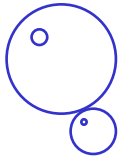
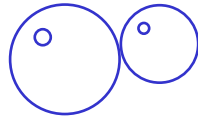


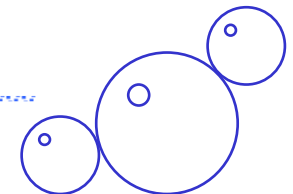
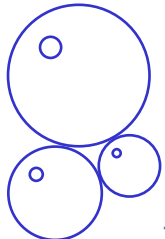
Architecture de la grille

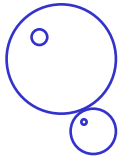
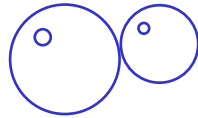




Architecture de la grille

- **Diversité des applications et des utilisateurs (profile, nombre, ...)**
supposent des solutions différentes
 - ✓ architectures différentes avec des services communs
- **Services de base**
 - ✓ authentification: établir l'identité de l'utilisateur
 - ✓ autorisation: établir le droit d'un utilisateur à utiliser des ressources (données, CPUs, ...)
 - ✓ communication entre tâches
 - ✓ contrôle de tâches: création, suspension, arrêt de l'exécution
 - ✓ politiques d'allocation de ressources
 - ✓ comptabilité de l'utilisation de ressources et mécanismes de paiement
 - ✓ mécanismes de protection des tâches/données
 - ✓ services de stockage (fichier, mémoire virtuelle, base de données, ...)

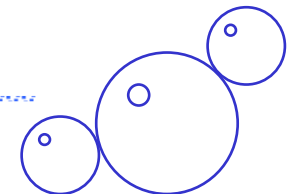
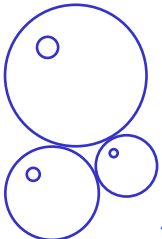


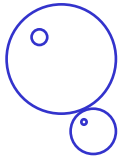
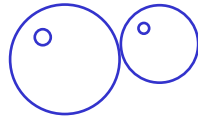


Architecture de la grille

▪ Problèmes inhérents

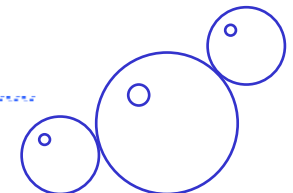
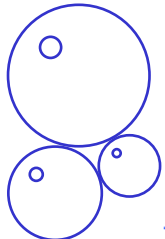
- ✓ authentification unique
- ✓ spécification des ressources nécessaires pour une tâche
- ✓ localisation des ressources disponibles
- ✓ gestion des autorisations
- ✓ réservation des ressources
- ✓ accès aux données distantes
- ✓ collecte de résultats
- ✓ comptabilité
- ✓ ...



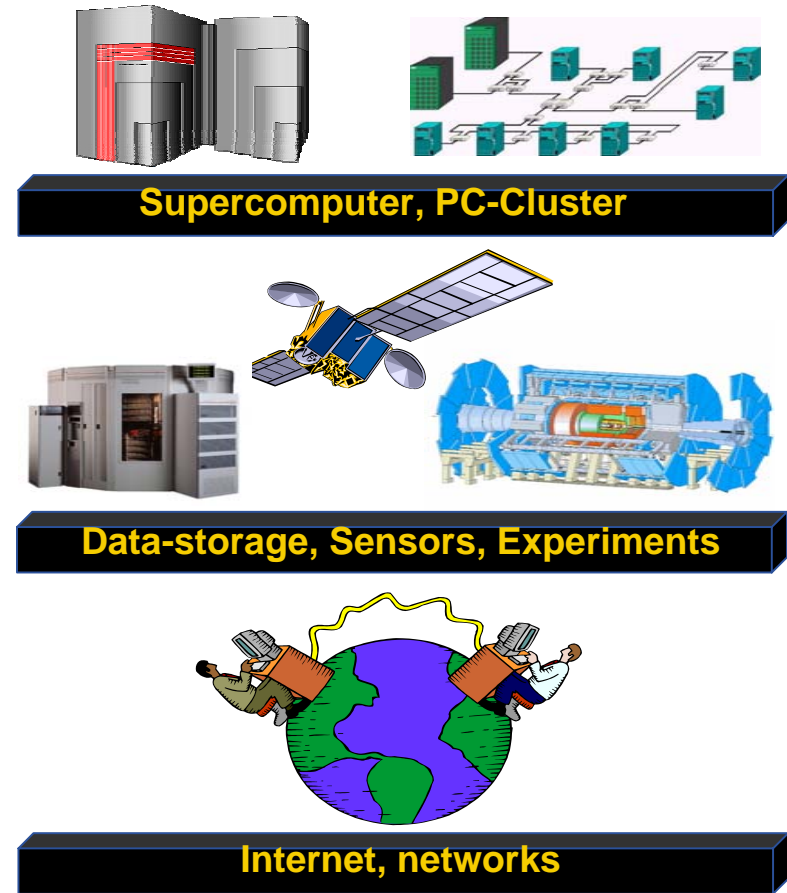
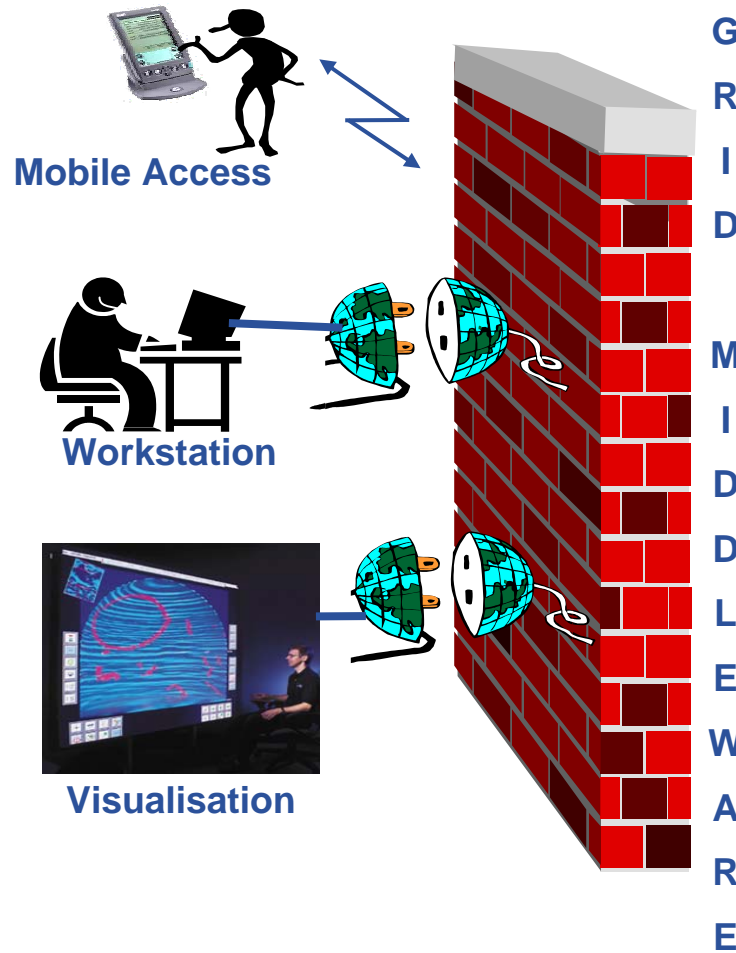


Architecture de la grille

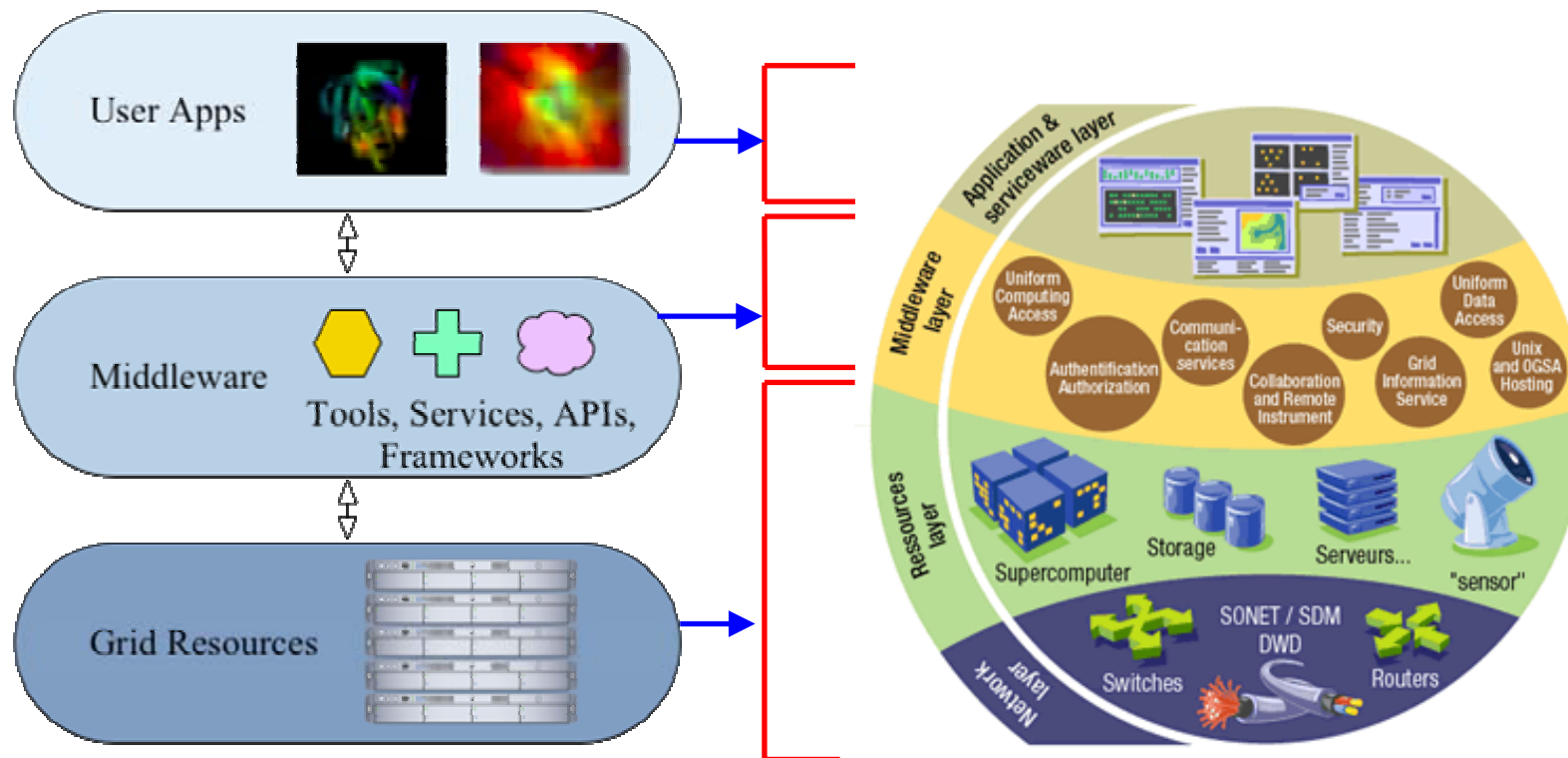
- **Complexité des applications**
 - ✓ parallèles, interactives, multimédia, ...
- **Les caractéristiques des ressources sont très variables (temps, espace)**
- **Absence de contrôle global de l'infrastructure**
 - ✓ comment proposer et garantir un service cohérent et un certain niveau de qualité?
- **Problèmes inhérents aux politiques de chaque site (fournisseur de ressources)**
 - ✓ sécurité, autorisations, comptabilité, budget

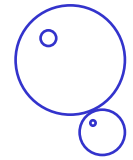
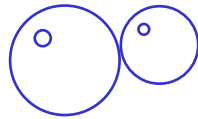


Architecture de la grille

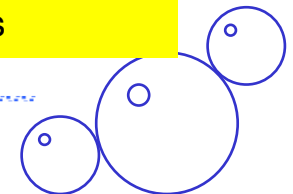
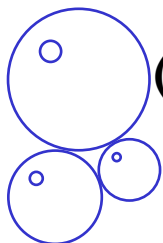
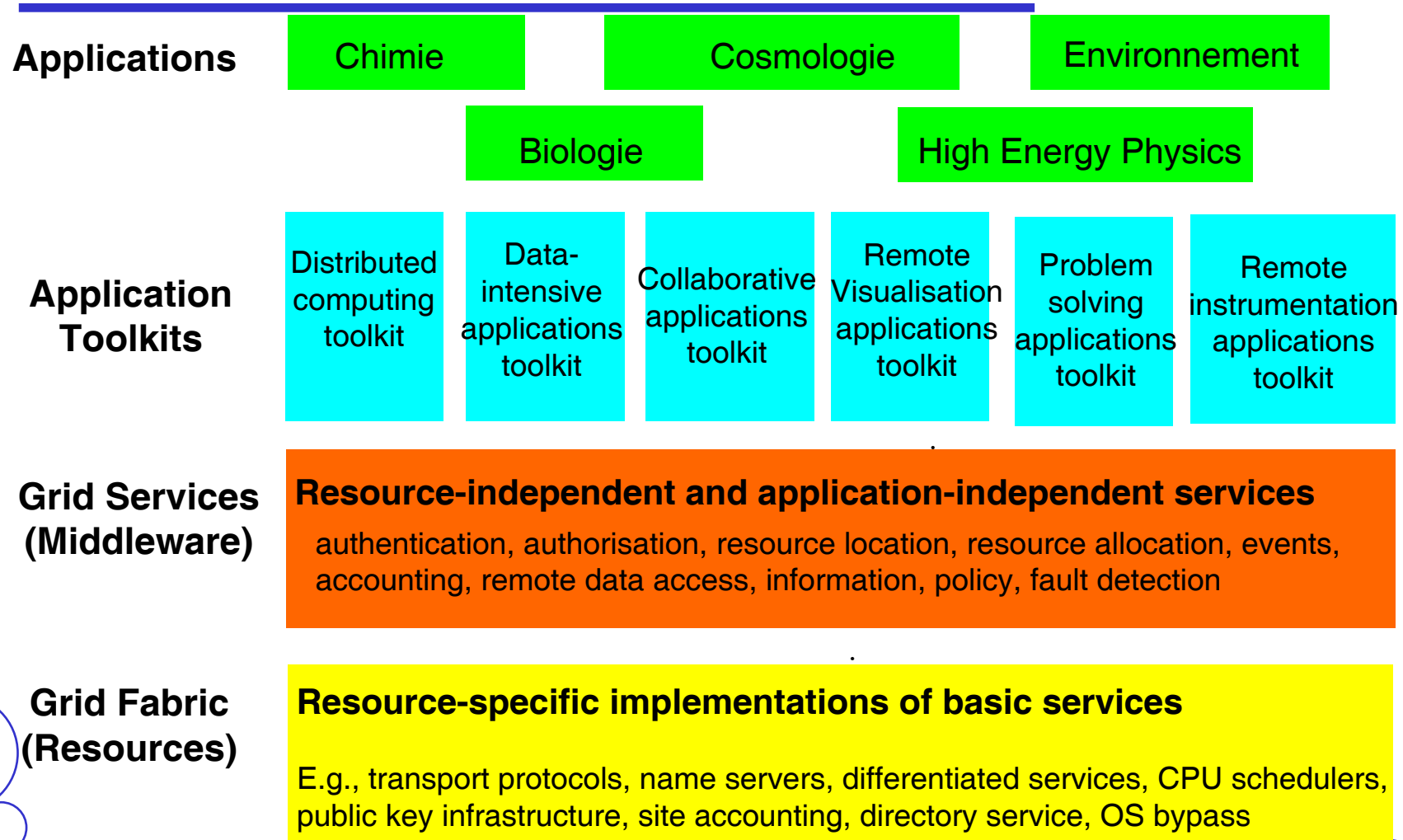


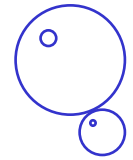
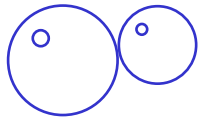
Architecture de la grille



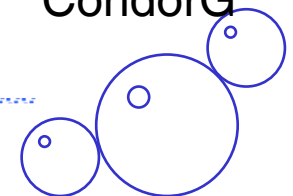
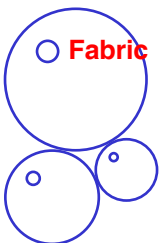
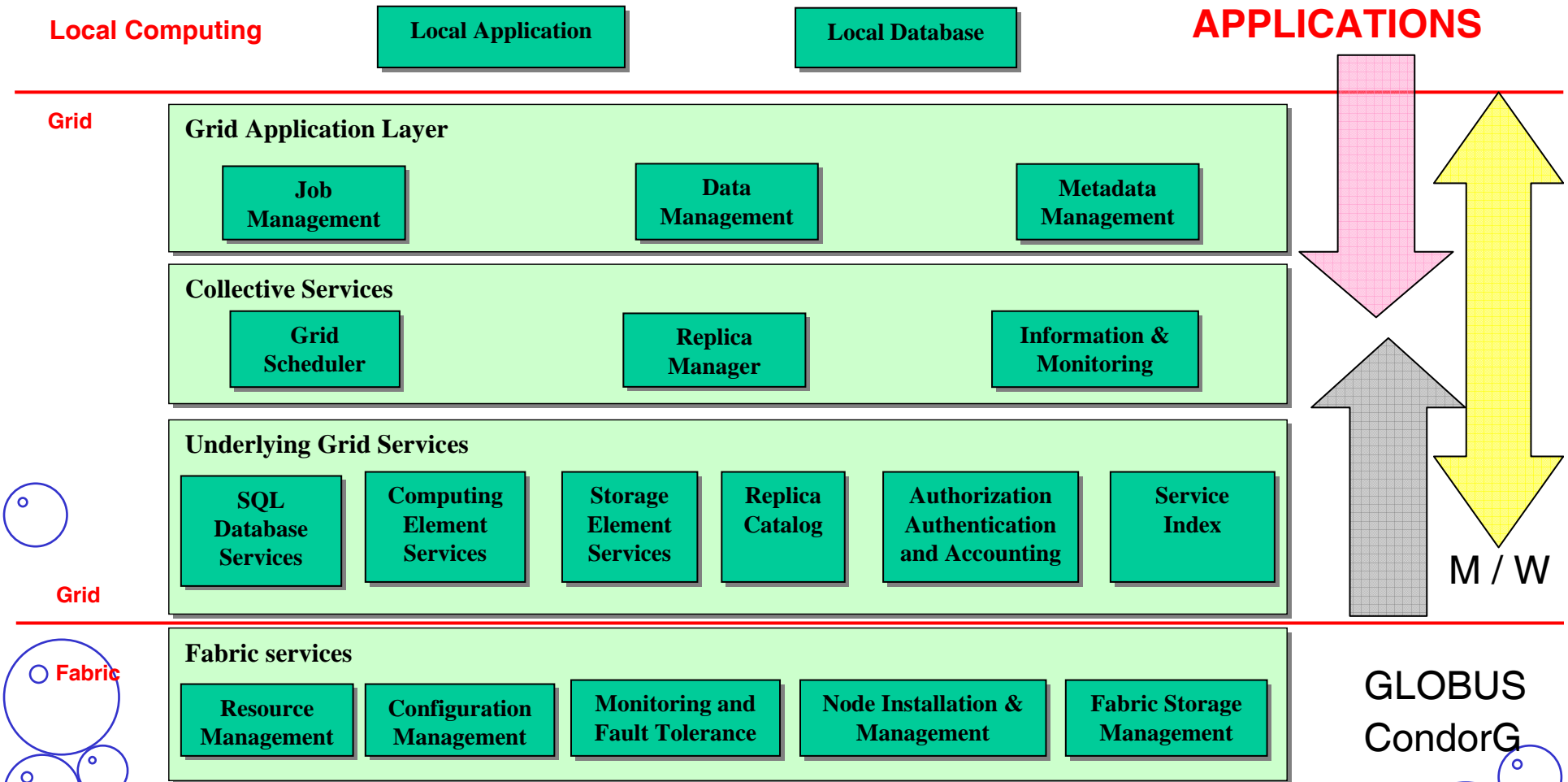


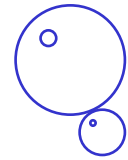
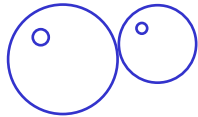
Architecture de la grille



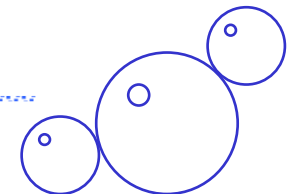
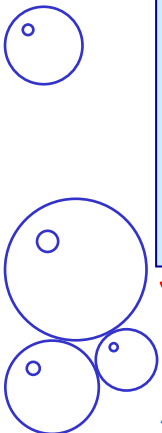
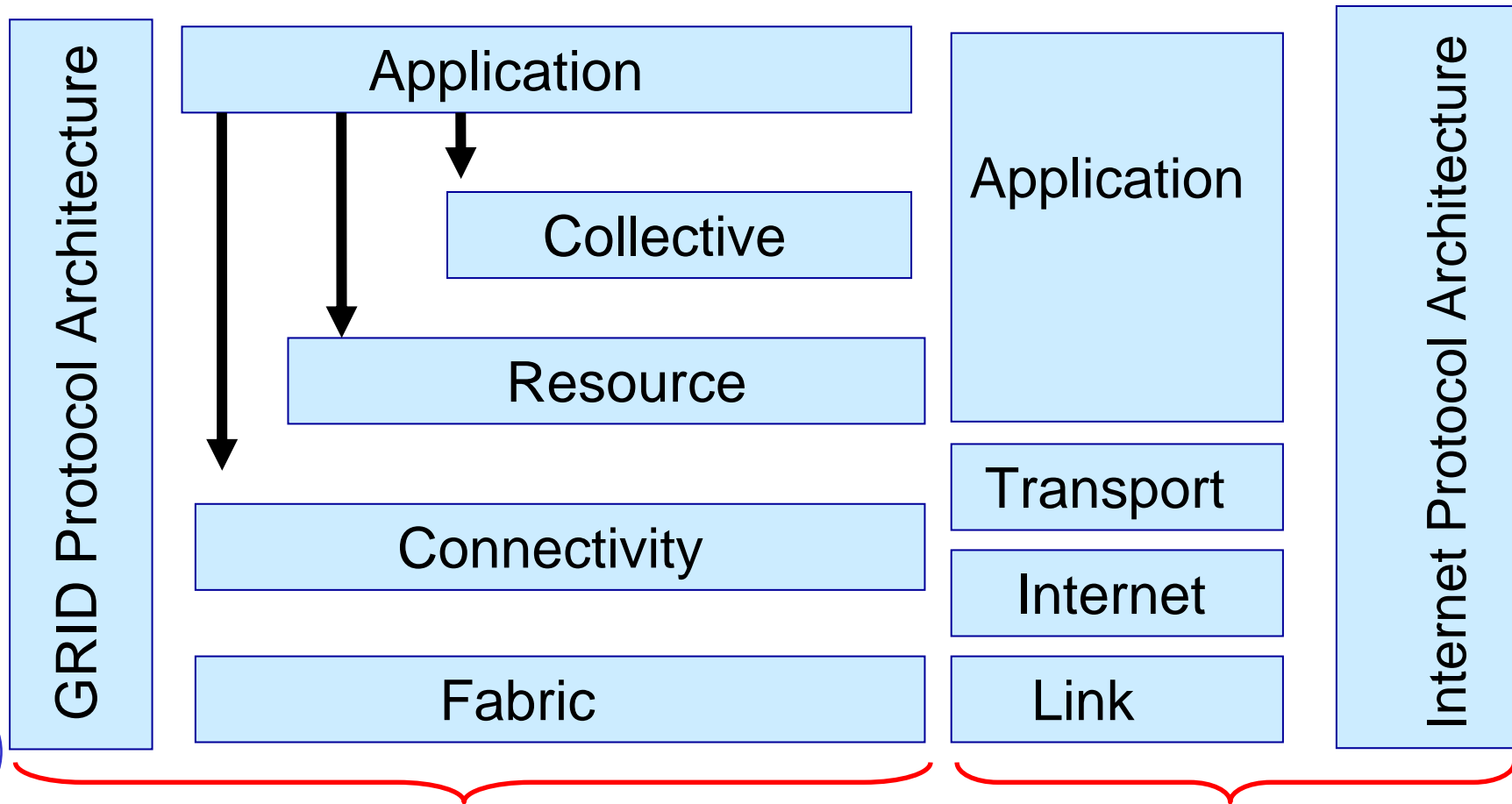


Architecture de la grille





Architecture de la grille



Architecture de la grille

- Les organisations virtuelles négocient l'accès aux ressources
- Le middleware tourne sur chaque ressource partagée
- Offre
 - ✓ Services données
 - ✓ Services de calcul
 - ✓ Services d'accès sécurisé
- Services distribués sont accessibles via la grille soit par des personnes ou par le middleware

