

Faculté STI
Plateforme des Ateliers Techniques PAT

00L©, 2016 September the 23rd



Presentation Framework

- ***PAT General Description***
 - ***Organization***
 - ***Job request process***
 - ***Statistics***



PAT Workshops Description

STI PAT Workshops

Workshops categories (2016 situation)

- 5 Mechanical prototyping
 - 3x Mechanical prototype manufacturing ✖
 - 1x mechanical prototype additive manufacturing ✘
 - 1x dedicated for lab experimentation ✘
- 1 PCB manufacturing, design support and electronics prototyping ✘

Workshops services provided

- Prototype parts manufacturing
- Mechanical design support
- Electro-mechanical design and assembly
- PCB manufacturing
- PCB design Support
- Electronic prototyping
- Additive manufacturing parts and design support
- Self-service workshop
- Workshop demonstration for students
- Experimental hydraulic testing platforms mounting
- Apprenticeship training center
- Others...

<http://sti-ateliers.epfl.ch>



Workshop definition & competencies

ATME - Atelier de l'institut de génie Mécanique

Usinage CNC 5 axes, mécanique moyenne à fine orientée vers les techniques de mesure, soudage d'inox TIG certifié, moule, étampe, enfonçage et tôlerie.

Responsable: Maxime Raton -> Tel: 35990

ATMX - Atelier de l'institut des Matériaux

Usinage CNC, découpe jet d'eau, usinage par ultrasons, rodage, électroérosion,.

Responsable: Pierre-André Despont -> Tel: 32965

ATPR - Atelier de l'institut de Microtechnique

Micromécanique, fraisage et tournage CNC, mesure optique, découpe laser. Petit atelier mécanique avec accès contrôlé pour le personnel et les étudiants.

Responsable: Alfred Thomas -> Tel: 37334

AFA - Atelier de Fabrication Additive

Fabrication additive de pièces en matière plastique au moyen des technologies FDM (Fil fondu), SLS (fusion laser), MJM (Polymérisation UV).

Responsable: Roland Dupuis -> Tel: 35696

ACI - Atelier pour le routage et la fabrication de Circuits Imprimés

Routage et réalisation de circuits imprimés à trous métallisés, finesse 0,150 mm, usinage chimique, phototraçage laser, laboratoire d'initiation à la fabrication de circuits imprimés.

Responsable: Jean-Marc Buchs -> Tel: 34699

PAT Job Request Process

Process:



Quotation elaboration mode :

1st mode: Effective time estimation (Manufacturing, technical and design support and additional costs)

2nd mode: Lump sum based on time allocation (Manufacturing, technical and design support and additional costs)

Jours	<0.5jrs	0.5-1jrs	1-2jrs	2-3jrs	3jrs-5jrs	5jrs-10jrs	10jrs-20jrs
Heures	0h-4h	4h-8h	8h-16h	16h-24h	24h-40h	40h-80h	80h-160h
Coûts (Tps moy * 20.-)	40	120	240	400	640	1200	2400
Conseils + admin	0	+1h	+1h	+2h	+3h	+4h	+5h
Coûts (20.-/hrs)	0	20	20	40	60	80	100
Forfait	40	140	260	440	700	1280	2500

Rate:

Internal manufacturing: 20 CHF/hrs or equivalent lump sum + 100% tooling expenses+ 100% materials or external sub-contractors expenses.

* STI Laboratories, EPFL Laboratories EPFL, EPFL Others, Overcharged rate for external requests



PAT Statistics: General Overview

General Statistics

Workshops Financial & HR (2015 & 2016 situation)

- *Resources budget (2016) : 2.847MCHF (Δ 2015-> -5%)*
- *Annual budget (2016) : 257KCHF (Δ 2015-> -4%)*
- *Billing (2015) : ~370KCHF (Δ 2014-> +25%)*
(All workshops are charging 100% of their services since 2015)
- *33 FTE (Δ 2015 -> -2.5FTE) -> (33 persons + 5 apprenticeship)*
- *Contract types: 27x CDI + 6x CDD*

PAT Services (2015 statistics)

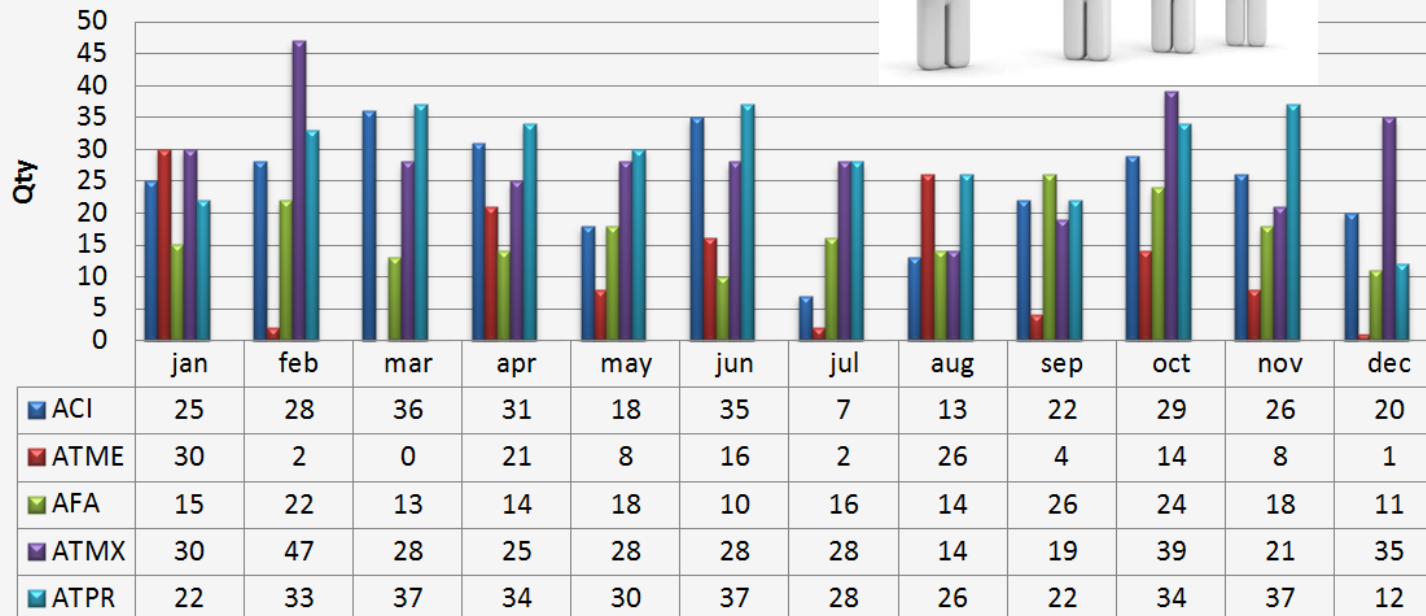
- *Research: >110 labs (~33Khrs/years) (STI (~90%), SV+IC+SB+ENAC (~10%))*
- *Education: ~150 student projects (~4.5Khrs/years) (SGM:30%, SMT:40%, SEL:15%, SMX:15%)*



PAT 2015 Statistics: Job requests

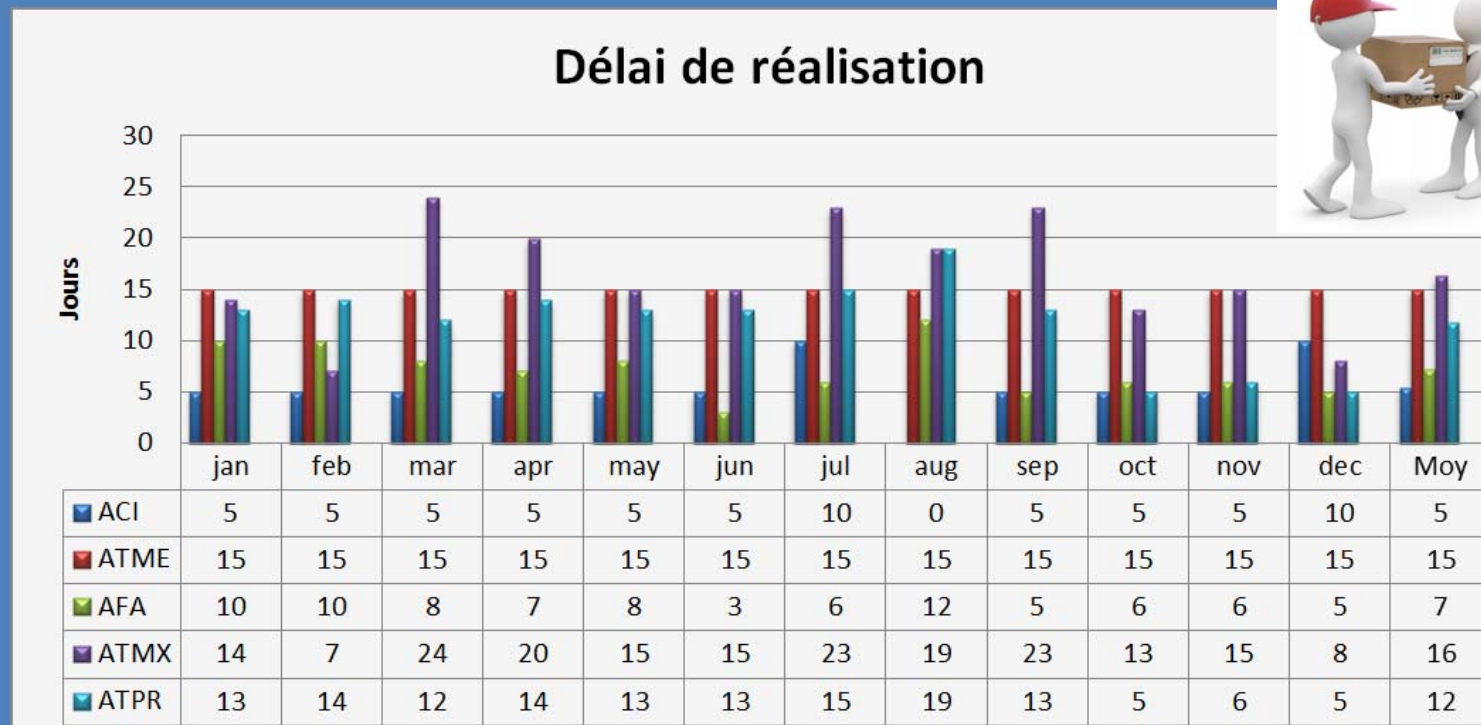
Graphique total jobs/ mois

Jobs



PAT 2015 Statistics: Delivery time

Graphique délai de réalisation moyen / mois



Questions

> Questions



olivier.olmo@epfl.ch

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